



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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Indianapolis, Indiana 46204
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TO: Interested Parties / Applicant
DATE: December 11, 2008
RE: Unifrax Corporation / 141-22410-00029
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

**Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY**

**Unifrax Corporation
54401 Smilax Road
New Carlisle, Indiana 46552**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T141-22410-00029	
Issued by:  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 11, 2008 Expiration Date: December 11, 2013

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary high-heat insulating materials manufacturing source.

Source Address:	54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address:	54401 Smilax Road, New Carlisle, IN 46552
General Source Phone Number:	574-654-7100
SIC Code:	3299
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Raw Material Handling System consisting of:
- (1) One (1) No. 4 Sand Silo, equipped with a baghouse identified as No. 4 Sand Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (2) One (1) No. 3 Alumina Silo, equipped with a baghouse identified as No. 3 Alumina Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (3) One (1) Raw Material Silo, equipped with a baghouse identified as Raw Material Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (4) One (1) Kaolin Silo, equipped with a baghouse identified as Kaolin Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (5) One (1) No. 5 Zircon Silo, equipped with a baghouse identified as No. 5 Zircon Silo Baghouse, constructed in 1985, capacity: 0.89 tons per hour.
 - (6) One (1) No. 6 H.G. Alumina Silo, equipped with a baghouse identified as No. 6 H.G. Alumina Silo Baghouse, constructed in 1986, capacity: 0.89 tons per hour.
 - (7) One (1) Alumina Transporter, equipped with a baghouse identified as Alumina Transporter Venting Baghouse, constructed in 1978, capacity: 0.89 tons per hour.

- (8) One (1) No. 1 Day Bin Kaolin, equipped with a baghouse identified as No. 1 Day Bin Kaolin Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
 - (9) One (1) No. 2 Day Bin Alumina, equipped with a baghouse identified as No. 2 Day Bin Alumina Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
 - (10) One (1) No. 3 Day Bin Sand, equipped with a baghouse identified as No. 3 Day Bin Sand Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
- (b) One (1) Submerged Electric Furnace I (SEF I) Process consisting of:
- (1) One (1) SEF I Mix Feed Bin, equipped with a baghouse identified as SEF I Mix Feed Bin Venting Baghouse, constructed in 1988, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Furnace, equipped with a baghouse identified as SEF I Furnace Hood Baghouse, constructed in 1986, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Collector, equipped with a baghouse identified as SEF I Collector Baghouse, constructed in 1991, capacity: 0.675 tons per hour.
 - (4) One (1) SEF I Bulk Bagger, equipped with a baghouse identified as SEF I Downline Baghouse, constructed in 1985, capacity: 0.675 tons per hour.
- (c) One (1) Submerged Electric Furnace II (SEF II) Process consisting of:
- (1) One (1) SEF II Mix Feed Bin 1, equipped with a baghouse identified as SEF II Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (2) One (1) SEF II Mix Feed Bin 2, equipped with a baghouse identified as SEF II Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (3) One (1) SEF II Furnace, equipped with a baghouse identified as SEF II Furnace Hood Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (4) One (1) SEF II Packaging Equipment, equipped with a baghouse identified as SEF II Downline Baghouse, constructed between 1988 and 1990, capacity: 1.4 tons per hour.
 - (5) One (1) SEF II Collector, equipped with a baghouse identified as SEF II Collector Baghouse, constructed in 1996, capacity: 1.4 tons per hour.
- (d) One (1) Submerged Electric Furnace III (SEF III) Process consisting of:
- (1) One (1) SEF III Mix Feed Bin 1, equipped with a baghouse identified as SEF III Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Mix Feed Bin 2, equipped with a baghouse identified as SEF III Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.

- (3) One (1) SEF III Slag Reclaim Bin, equipped with a baghouse identified as SEF III Slag Reclaim Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (4) One (1) SEF III Furnace, equipped with a baghouse identified as SEF III Furnace Hood Baghouse, constructed in 1986, capacity: 1.4 tons per hour.
 - (5) One (1) SEF III Collector, equipped with a baghouse identified as SEF III Collector Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (6) One (1) SEF III Needler, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (7) One (1) SEF III Wet Slitter, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (8) One (1) SEF III Roll-up Machine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (9) One (1) SEF III Guillotine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (10) One (1) SEF III Attrition Mill, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
- (e) One (1) Submerged Electric Furnace IV (SEF IV) Process consisting of:
- (1) One (1) SEF IV Mix Feed Bin 1, equipped with a baghouse identified as SEF IV Mix Feed Bin East Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (2) One (1) SEF IV Mix Feed Bin 2, equipped with a baghouse identified as SEF IV Mix Feed Bin West Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (3) One (1) SEF IV Furnace, equipped with a baghouse identified as SEF IV Furnace Hood Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (4) One (1) SEF IV Attrition Mill, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (5) One (1) SEF IV Cyclone & Bulk Bagger, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (6) One (1) SEF IV HSA process, equipped with a baghouse identified as SEF IV HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
- (f) One (1) Vacuum Casting Process consisting of:
- (1) One (1) Vacuum Cast Mix Tank 1, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.
 - (2) One (1) Vacuum Cast Mix Tank 2, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.

- (3) One (1) Vacuum Cast Board Sander, equipped with a baghouse identified as Vacuum Cast Board Sander Baghouse, constructed in 1978, capacity: 1 ton per hour.
- (4) One (1) Vacuum Cast Board Saw System, equipped with a baghouse identified as Vacuum Cast Board Saw System Baghouse, constructed in 1996, capacity: 1 ton per hour.
- (g) One (1) Fabricated Products Area consisting of:
 - (1) One (1) Fabricated Products Area consisting of folding, banding, and module-making machines, equipped with a baghouse identified as Fabricated Products Area Equipment North Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (2) One (1) Fabricated Products Area consisting of a v-blender, ball mill, and high-temperature caulk fabrication, equipped with a baghouse identified as Fabricated Products Area Equipment West Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (3) One (1) Fabrication Area Vacuum System, equipped with a baghouse identified as Fabrication Area Vacuum System Baghouse, constructed in 1981, capacity: 1 ton per hour.
- (h) One (1) Warehouse Blow-off Booth with particulate emissions controlled by a Warehouse Blow-off Booth filter, constructed in 1981, capacity: 1 ton per hour.
- (i) One (1) ODB Bagger, equipped with a baghouse identified as ODB Baghouse, constructed in 1981, capacity: 0.25 tons per hour.
- (j) The following facilities at the Raw Material Handling System:
 - (1) One (1) Common Blender Transporter, constructed in 1990, equipped with a baghouse identified as Main Trans Vent Baghouse, capacity: 0.89 tons per hour.
 - (2) One (1) No. 4 Day Bin H.G. Alumina, constructed in 1990, equipped with a baghouse identified as No. 4 Day Bin H.G. Alumina Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (3) One (1) No. 5 Day Bin Zircon, constructed in 1990, equipped with a baghouse identified as No. 5 Day Bin Zircon Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (4) One (1) No. 6 Day Bin Test Material, constructed in 1990, equipped with a baghouse identified as No. 6 Day Bin Test Material Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (5) One (1) Bad Batch Bin, constructed in 1990, equipped with a baghouse identified as Bad Batch Bin Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (6) One (1) SEF I, SEF IV, Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF I, SEF IV, Blender Transporter Vent Baghouse, capacity: 0.89 tons per hour.

- (7) One (1) SEF II, SEF III Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF II, SEF III Blender Transporter Baghouse, capacity: 0.89 tons per hour.
- (k) The following facilities at the Submerged Electric Furnace I (SEF I) Process:
 - (1) One (1) SEF I Conveyor System, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Attrition Mill, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Picker, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
- (l) The following facility at the Submerged Electric Furnace II (SEF II) Process:
 - One (1) SEF II Attrition Mill, constructed in 1997, equipped with a baghouse identified as SEF II Downline Baghouse, capacity: 1.4 tons per hour.
- (m) The following facilities at the Submerged Electric Furnace III (SEF III) Process:
 - (1) One (1) SEF III Conveyor System, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Bulk Bagger, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
- (n) The following facilities at the Fabricated Products Area:
 - (1) One (1) Fabricated Products Area Band Saw System, constructed in 1981, equipped with a baghouse identified as Fabricated Products Area Band Saw System Baghouse, capacity: 1 ton per hour.
 - (2) One (1) Fabrication Area Blow-off booth, constructed in 1986, equipped with a filter identified as Fabrication area Blow-off Booth Filter, capacity: 1 ton per hour.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21) that are specifically regulated.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

-
- (a) This permit, T141-22410-00029, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

-
- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T141-22410-00029 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;

- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.6 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on September 19, 2001.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
[326 IAC 2-2][326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;

- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) Raw Material Handling System consisting of:
 - (1) One (1) No. 4 Sand Silo, equipped with a baghouse identified as No. 4 Sand Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (2) One (1) No. 3 Alumina Silo, equipped with a baghouse identified as No. 3 Alumina Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (3) One (1) Raw Material Silo, equipped with a baghouse identified as Raw Material Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (4) One (1) Kaolin Silo, equipped with a baghouse identified as Kaolin Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (5) One (1) No. 5 Zircon Silo, equipped with a baghouse identified as No. 5 Zircon Silo Baghouse, constructed in 1985, capacity: 0.89 tons per hour.
 - (6) One (1) No. 6 H.G. Alumina Silo, equipped with a baghouse identified as No. 6 H.G. Alumina Silo Baghouse, constructed in 1986, capacity: 0.89 tons per hour.
 - (7) One (1) Alumina Transporter, equipped with a baghouse identified as Alumina Transporter Venting Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (8) One (1) No. 1 Day Bin Kaolin, equipped with a baghouse identified as No. 1 Day Bin Kaolin Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
 - (9) One (1) No. 2 Day Bin Alumina, equipped with a baghouse identified as No. 2 Day Bin Alumina Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
 - (10) One (1) No. 3 Day Bin Sand, equipped with a baghouse identified as No. 3 Day Bin Sand Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
- (b) One (1) Submerged Electric Furnace I (SEF I) Process consisting of:
 - (1) One (1) SEF I Mix Feed Bin, equipped with a baghouse identified as SEF I Mix Feed Bin Venting Baghouse, constructed in 1988, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Furnace, equipped with a baghouse identified as SEF I Furnace Hood Baghouse, constructed in 1986, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Collector, equipped with a baghouse identified as SEF I Collector Baghouse, constructed in 1991, capacity: 0.675 tons per hour.
 - (4) One (1) SEF I Bulk Bagger, equipped with a baghouse identified as SEF I Downline Baghouse, constructed in 1985, capacity: 0.675 tons per hour.

- (c) One (1) Submerged Electric Furnace II (SEF II) Process consisting of:
- (1) One (1) SEF II Mix Feed Bin 1, equipped with a baghouse identified as SEF II Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (2) One (1) SEF II Mix Feed Bin 2, equipped with a baghouse identified as SEF II Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (3) One (1) SEF II Furnace, equipped with a baghouse identified as SEF II Hood Furnace Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (4) One (1) SEF II Packaging Equipment, equipped with a baghouse identified as SEF II Downline Baghouse, constructed between 1988 and 1990, capacity: 1.4 tons per hour.
 - (5) One (1) SEF II Collector, equipped with a baghouse identified as SEF II Collector Baghouse, constructed in 1996, capacity: 1.4 tons per hour.
- (d) One (1) Submerged Electric Furnace III (SEF III) Process consisting of:
- (1) One (1) SEF III Mix Feed Bin 1, equipped with a baghouse identified as SEF III Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Mix Feed Bin 2, equipped with a baghouse identified as SEF III Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (3) One (1) SEF III Slag Reclaim Bin, equipped with a baghouse identified as SEF III Slag Reclaim Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (4) One (1) SEF III Furnace, equipped with a baghouse identified as SEF III Furnace Hood Baghouse, constructed in 1986, capacity: 1.4 tons per hour.
 - (5) One (1) SEF III Collector, equipped with a baghouse identified as SEF III Collector Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (6) One (1) SEF III Needler, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (7) One (1) SEF III Wet Slitter, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (8) One (1) SEF III Roll-up Machine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (9) One (1) SEF III Guillotine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (10) One (1) SEF III Attrition Mill, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.

- (e) One (1) Submerged Electric Furnace IV (SEF IV) Process consisting of:
 - (1) One (1) SEF IV Mix Feed Bin 1, equipped with a baghouse identified as SEF IV Mix Feed Bin East Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (2) One (1) SEF IV Mix Feed Bin 2, equipped with a baghouse identified as SEF IV Mix Feed Bin West Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (3) One (1) SEF IV Furnace, equipped with a baghouse identified as SEF IV Furnace **Hood** Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (4) One (1) SEF IV Attrition Mill, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (5) One (1) SEF IV Cyclone & Bulk Bagger, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (6) One (1) SEF IV HSA process, equipped with a baghouse identified as SEF IV HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
- (f) One (1) Vacuum Casting Process consisting of:
 - (1) One (1) Vacuum Cast Mix Tank 1, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.
 - (2) One (1) Vacuum Cast Mix Tank 2, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.
 - (3) One (1) Vacuum Cast Board Sander, equipped with a baghouse identified as Vacuum Cast Board Sander Baghouse, constructed in 1978, capacity: 1 ton per hour.
 - (4) One (1) Vacuum Cast Board Saw System, equipped with a baghouse identified as Vacuum Cast Board Saw System Baghouse, constructed in 1996, capacity: 1 ton per hour.
- (g) One (1) Fabricated Products Area consisting of:
 - (1) One (1) Fabricated Products Area consisting of folding, banding, and module-making machines, equipped with a baghouse identified as Fabricated Products Area Equipment North Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (2) One (1) Fabricated Products Area consisting of a v-blender, ball mill, and high-temperature caulk fabrication, equipped with a baghouse identified as Fabricated Products Area Equipment West Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (3) One (1) Fabrication Area Vacuum System, equipped with a baghouse

identified as Fabrication Area Vacuum System Baghouse, constructed in 1981, capacity: 1 ton per hour.

- (h) One (1) Warehouse Blow-off Booth with particulate emissions controlled by a Warehouse Blow-off Booth filter, constructed in 1981, capacity: 1 ton per hour.
- (i) One (1) ODB Bagger, equipped with a baghouse identified as ODB Baghouse, constructed in 1981, capacity: 0.25 tons per hour.
- (j) The following facilities at the Raw Material Handling System:
 - (1) One (1) Common Blender Transporter, constructed in 1990, equipped with a baghouse identified as Main Trans Vent Baghouse, capacity: 0.89 tons per hour.
 - (2) One (1) No. 4 Day Bin H.G. Alumina, constructed in 1990, equipped with a baghouse identified as No. 4 Day Bin H.G. Alumina Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (3) One (1) No. 5 Day Bin Zircon, constructed in 1990, equipped with a baghouse identified as No. 5 Day Bin Zircon Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (4) One (1) No. 6 Day Bin Test Material, constructed in 1990, equipped with a baghouse identified as No. 6 Day Bin Test Material Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (5) One (1) Bad Batch Bin, constructed in 1990, equipped with a baghouse identified as Bad Batch Bin Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (6) One (1) SEF I, SEF IV, Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF I, SEF IV, Blender Transporter Baghouse, capacity: 0.89 tons per hour.
 - (7) One (1) SEF II, SEF III Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF II, SEF III Blender Transporter Baghouse, capacity: 0.89 tons per hour.
- (k) The following facilities at the Submerged Electric Furnace I (SEF I) Process:
 - (1) One (1) SEF I Conveyor System, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Attrition Mill, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Picker, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
- (l) The following facility at the Submerged Electric Furnace II (SEF II) Process:
 - One (1) SEF II Attrition Mill, constructed in 1997, equipped with a baghouse identified as SEF II Downline Baghouse, capacity: 1.4 tons per hour.

- (m) The following facilities at the Submerged Electric Furnace III (SEF III) Process:
- (1) One (1) SEF III Conveyor System, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Bulk Bagger, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
- (n) The following facilities at the Fabricated Products Area:
- (1) One (1) Fabricated Products Area Band Saw System, constructed in 1981, equipped with a baghouse identified as Fabricated Products Area Band Saw System Baghouse, capacity: 1 ton per hour.
 - (2) One (1) Fabrication Area Blow-off booth, constructed in 1986, equipped with a filter identified as Fabrication area Blow-off Booth Filter, capacity: 1 ton per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6.5] [326 IAC 2-2] [326 IAC 2-3]

- (a) Pursuant to CP 141-2522-00029, issued on January 18, 1995, the PM emissions from the baghouses are limited to make the initial source a minor source pursuant to 326 IAC 2-3, Emission Offset, and to comply with 326 IAC 6.5:
- (1) The limit for the Raw Material Storage and Handling Process: The No. 4 Sand Silo Baghouse, No. 3 Alumina Silo Baghouse, Raw Material Baghouse, Kaolin Silo Baghouse, No. 5 Zircon Silo Baghouse, No. 6 H.G. Alumina Silo Baghouse, and the Alumina Transporter Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm, each; and the No. 2 Day Bin Alumina Bin Venting Baghouse and the No. 3 Day Bin Sand Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 900dscfm, each.
 - (2) The limit for the SEF I Furnace Process: SEF I Mix Feed Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.
 - (3) The limit for the SEF II Furnace Process: SEF II Mix Feed Bin 1 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; and SEF II Mix Feed Bin 2 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.
 - (4) The limit for the SEF III Furnace Process: SEF III Mix Feed Bin 1 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; SEF III Mix Feed Bin 2 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; and SEF III Downline Baghouse is 0.025gr/dscf with an input flow rate not to exceed 18,000dscfm.
 - (5) The limit for the Vacuum Casting Process: Vacuum Cast Board Sander Baghouse is 0.025gr/dscf with an input flow rate not to exceed 15,000dscfm; Vacuum Cast Board Saw System Baghouse is 0.025gr/dscf with an input flow

rate not to exceed 18,000dscfm; and Vacuum Cast Mix Tanks 1 and 2 Baghouse is 0.025gr/dscf with an input flow rate not to exceed 7,500dscfm. In addition, each facility at the vacuum casting process shall be limited to 4,000 hours of operation per consecutive twelve (12) month period.

- (6) The limit for the Fabricated Products Process: Fabricated Products Area Fabrication Equipment Baghouse 1 is 0.025gr/dscf with an input flow rate not to exceed 9,000dscfm; Fabricated Products Area Fabrication Equipment Baghouse 2 is 0.025gr/dscf with an input flow rate not to exceed 5,000dscfm; and Fabrication Area Vacuum System Baghouse is 0.025gr/dscf with an input flow rate not to exceed 1,000dscfm.
 - (7) The limit for the General Facilities: ODB Baghouse is 0.025gr/dscf with an input flow rate not to exceed 6,000dscfm.
 - (8) The limit for the No. 1 Day Bin Kaolin Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 900dscfm.
 - (9) The limit for the SEF III Slag Reclaim Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.
- (b) In order to show that the existing source was a minor source in 1995 pursuant to 326 IAC 2-3, Emission Offset, the following emission units are limited. The following limits will also ensure compliance with 326 IAC 6.5-1-2:
- (1) The limit for the SEF IV HSA Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 36,000dscfm;
 - (2) The limit for the SEF I Furnace Hood Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 15,000dscfm;
 - (3) The limit for the SEF I Collector Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 24,000dscfm;
 - (4) The limit for the SEF I Downline Baghouse is 0.0054gr/dscf with an input flow rate not to exceed 18,000dscfm;
 - (5) The limit for the SEF II Furnace Hood Baghouse is 0.00218gr/dscf with an input flow rate not to exceed 20,000dscfm;
 - (6) The limit for the SEF II Downline Baghouse is 0.00133gr/dscf with an input flow rate not to exceed 18,000dscfm;
 - (7) The limit for the SEF III Furnace Hood Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 20,000dscfm;
 - (8) The limit for the SEF III Collector Baghouse is 0.000626gr/dscf with an input flow rate not to exceed 39,000dscfm; and
 - (9) The limit for the Fabricated Products Area Band Saw System Baghouse is 0.025gr/dscf with an input flow rate not to exceed 2,500dscfm.
- (c) The facilities existing in 1995, but not permitted in CP 141-2522-00029, are required to comply with the following limitations:

- (1) The limit for the Main Trans Vent Baghouse is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (2) The limit for the No.4 Day Bin H.G. Alumina Vent Baghouse is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (3) The limit for the No.5 Day Bin Zircon Vent Baghouse is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (4) The limit for the No.6 Day Bin Test Material Vent Baghouse is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (5) The limit for the Bad Batch Bin Vent Baghouse is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (6) The limit for the Fabrication Area Blow-off Booth is 0.025gr/dscf with an input flow rate of 3,000dscfm; and
 - (7) The limit for the Warehouse Blow-off Booth is 0.025gr/dscf with an input flow rate 3,000dscfm.
- (d) The facilities constructed during or after 1996 and not permitted in CP 141-2522-00029, are required to comply with the following limitations:
- (1) The limit for the SEF I, SEF IV Blender Transporter Venting Baghouse is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (2) The limit for the SEF II, SEF III Blender Transporter Venting Baghouse is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (3) The limit for the SEF II Collector Venting Baghouse is 0.030gr/dscf with an input flow rate of 40,000dscfm;
 - (4) The limit for the SEF IV Mix Feed Bin East Venting Baghouse is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (5) The limit for the SEF IV Mix Feed Bin West Venting Baghouse is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (6) The limit for the SEF IV Furnace Hood Baghouse is 0.030gr/dscf with an input flow rate of 20,000dscfm; and
 - (7) The limit for the SEF IV Attrition Mill, Cyclone and Bulk Bagger, all exhausting to the SEF IV Downline baghouse is 0.030gr/dscf with an input flow rate of 22,000dscfm.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.3 Particulate Matter (PM)

The baghouses and filters for PM control shall be in operation and control emissions from the corresponding facilities at all times that the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.4 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the Fabrication Area Blow-off Booth filter and Warehouse Blow-off Booth filter on any day that such booth is operated. To monitor the performance of the dry filters, weekly observations of particulate emissions shall be made from the blow-off booth stacks while the booths are in operation, during such weeks that the booths operate. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the particulate emissions from the stack and the presence of particulate on the rooftops and the nearby ground. The Response to Excursions or Exceedances for these units shall contain troubleshooting contingency and response steps for when a noticeable change in particulate emission, or evidence of particulate emission is observed. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of all stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the pressure drop across all baghouses used in conjunction with the high-heat insulating materials manufacturing source, in the following manner:

- (a) For the Raw Material Bin Venting Bagoes (Silos Loaded from Railcars), parametric monitoring shall be performed once per day. The magnehelic measuring the pressure drop across the bin venting baghouse controlling emissions from the silo currently being loaded is to be read (i.e., one time during the unloading of a specific railcar to a specific silo), and the reading recorded. The pressure drop from that silo's bin venting baghouse shall be noted and recorded, but only during such time as no material is being

transported from that specific silo to a day bin. In the event that no silo is being loaded, the condition of "non-use" shall be recorded. The Raw Material Bin Venting Baghouses are:

Raw Material Baghouse
Kaolin Silo Baghouse
No. 3 Alumina Silo Baghouse
No. 4 Sand Silo Baghouse
No. 5 Zircon Silo Baghouse
No. 6 H.G. Alumina Silo Baghouse

- (b) For the Raw Material Day Bin "Bin Venting Baghouses," parametric monitoring shall be performed once per day. The magnehelics measuring the pressure drop across the bin venting baghouses controlling emissions from the Raw Material Day Bins are to be read when the day bins are in operation. In the event that any day bin is not in operation at the time of the reading, the condition of "non-use" of such day bin shall be recorded. The Raw Material Day Bin "Bin Venting Baghouses" are:

Alumina Transporter Venting Baghouse
No. 1 Day Bin Kaolin Bin Venting Baghouse
No. 2 Day Bin Alumina Bin Venting Baghouse
No. 3 Day Bin Sand Bin Venting Baghouse
Main Trans Vent Baghouse
No. 4 Day Bin H.G. Alumina Bin Venting Baghouse
No. 5 Day Bin Zircon Bin Venting Baghouse
No. 6 Day Bin Test Material Bin Venting Baghouse
Bad Batch Bin Bin Venting Baghouse
SEF I, SEF IV, Blender Transporter Baghouse
SEF II, SEF III Blender Transporter Baghouse

- (c) For the Mix (Furnace) Feed Bins "Bin Venting Baghouses," parametric monitoring shall be performed once day at specific times to be set. The magnehelics measuring the pressure drop across the bin venting baghouses controlling emissions from the furnaces' Mix Feed Bins are to be read by the furnace operator when the Mix Feed Bins are in operation. In the event that any Mix Feed Bin is not in operation at the time of the reading, the condition of "non-use" of such bin shall be recorded. The Mix (Furnace) Feed Bins "Bin Venting Baghouses" are:

SEF I Mix Feed Bin Venting Baghouse
SEF II Mix Feed Bin 1 Bin Venting Baghouse
SEF II Mix Feed Bin 2 Bin Venting Baghouse
SEF III Mix Feed Bin 1 Bin Venting Baghouse
SEF III Mix Feed Bin 2 Bin Venting Baghouse
SEF III Slag Reclaim Bin Venting Baghouse
SEF IV Mix Feed Bin East Bin Venting Baghouse
SEF IV Mix Feed Bin West Bin Venting Baghouse

- (d) For the Furnace Baghouses, parametric monitoring shall be performed once per day at specific times to be set, the magnehelics measuring the pressure drop across the baghouses controlling emissions from the furnaces are to be read by the furnace operator when the specific furnace is in operation. In the event that any furnace is not in operation at the time of the reading, the condition of "non-use" of such furnace shall be recorded. The Furnace Baghouses are:

SEF I Furnace Hood Baghouse
SEF II Furnace Hood Baghouse

SEF III Furnace Hood Baghouse
SEF IV Furnace Hood Baghouse

- (e) For the Furnace Collector Baghouses, "Downline" Baghouses, parametric monitoring shall be performed once per day. The magnehelics measuring the pressure drop across the baghouses controlling emissions from the furnace collectors and "downline" facilities are to be read during times when the baghouses are in operation. The Furnace Collector Baghouses, "Downline" Baghouses are:

SEF I Collector Baghouse
SEF I Downline Baghouse
SEF II Downline Baghouse
SEF III Collector Baghouse
SEF III Downline Baghouse
SEF IV Downline Baghouse
SEF IV HSA Baghouse

- (f) For the Fabricated Products and Vacuum Cast Baghouses, parametric monitoring shall be performed once per day. The magnehelics measuring the pressure drop across the baghouses controlling emissions from Fabricated Products and Vacuum Cast facilities are to be read by production personnel when such facilities are in operation. The Fabricated Products and Vacuum Cast Baghouses are:

Fabricated Products Area Band Saw System Baghouse
Fabricated Products Area Equipment North Baghouse
Fabricated Products Area Equipment West Baghouse
Fabrication Area Vacuum System Baghouse
Vacuum Cast Board Sander Baghouse
Vacuum Cast Board Saw System Baghouse
Vacuum Cast Mix Tanks Baghouse

Unless operated under conditions for which the Response to Excursions or Exceedances specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 and 5.0 inches of water or a range established during the latest stack test. The Response to Excursions or Exceedances for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For any failure with corresponding response steps and timetable not described in the Response to Excursions or Exceedances, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the

requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of all stack exhausts once per day during normal daylight operations, when exhausting to the atmosphere.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:
 - (1) Records of the following operational parameters at frequencies described in Condition D.1.6 during normal operation when venting to the atmosphere:

Pressure drop across the baghouses
 - (2) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.1.4, the Permittee shall maintain a log of weekly particulate observations and daily and monthly inspections.
- (d) To document compliance with Condition D.1.1(a)(5), the Permittee shall maintain monthly records of the hours of operation at each facility at the vacuum casting process.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(a)(5) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Unifrax Corporation
Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
Part 70 Permit No.: T141-22410-00029

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Unifrax Corporation
Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
Part 70 Permit No.: T141-22410-00029

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
AIR COMPLIANCE BRANCH**

Part 70 Quarterly Report

Source Name: Unifrax Corporation
Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
Part 70 Permit No.: T141-22410-00029
Facilities: Vacuum Cast Mix Tanks 1 and 2
Parameter: Operating hours (hours with potential PM emissions)
Limit: Operating hours of no more than 4,000 hours per year

YEAR:

Month	Operating Hours	Operating Hours	Operating Hours
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 AIR COMPLIANCE BRANCH**

Part 70 Quarterly Report

Source Name: Unifrax Corporation
 Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
 Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
 Part 70 Permit No.: T141-22410-00029
 Facilities: Vacuum Cast Board Sander
 Parameter: Operating hours (hours with potential PM emissions)
 Limit: Operating hours of no more than 4,000 hours per year

YEAR:

Month	Operating Hours	Operating Hours	Operating Hours
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
AIR COMPLIANCE BRANCH**

Part 70 Quarterly Report

Source Name: Unifrax Corporation
Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
Part 70 Permit No.: T141-22410-00029
Facilities: Vacuum Board Saw System
Parameter: Operating hours (hours with potential PM emissions)
Limit: Operating hours of no more than 4,000 hours per year

YEAR:

Month	Operating Hours	Operating Hours	Operating Hours
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Unifrax Corporation
Source Address: 54401 Smilax Road, New Carlisle, Indiana 46552
Mailing Address: 54401 Smilax Road, New Carlisle, IN 46552
Part 70 Permit No.: T141-22410-00029

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Unifrax Corporation
Source Location:	54401 Smilax Road, New Carlisle, Indiana 46552
County:	St. Joseph
SIC Code:	3299
Permit Renewal No.:	T141-22410-00029
Permit Reviewer:	Michael S. Brooks

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Unifrax Corporation relating to the operation of a stationary high-heat insulating materials manufacturing source.

History

On December 19, 2005, Unifrax Corporation submitted an application to the OAQ requesting to renew its operating permit.

Permitted Emission Units and Pollution Control Equipment

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Raw Material Handling System consisting of:
- (1) One (1) No. 4 Sand Silo, equipped with a baghouse identified as No. 4 Sand Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (2) One (1) No. 3 Alumina Silo, equipped with a baghouse identified as No. 3 Alumina Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (3) One (1) Raw Material Silo, equipped with a baghouse identified as Raw Material Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (4) One (1) Kaolin Silo, equipped with a baghouse identified as Kaolin Silo Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (5) One (1) No. 5 Zircon Silo, equipped with a baghouse identified as No. 5 Zircon Silo Baghouse, constructed in 1985, capacity: 0.89 tons per hour.
 - (6) One (1) No. 6 H.G. Alumina Silo, equipped with a baghouse identified as No. 6 H.G. Alumina Silo Baghouse, constructed in 1986, capacity: 0.89 tons per hour.
 - (7) One (1) Alumina Transporter, equipped with a baghouse identified as Alumina Transporter Venting Baghouse, constructed in 1978, capacity: 0.89 tons per hour.
 - (8) One (1) No. 1 Day Bin Kaolin, equipped with a baghouse identified as No. 1 Day Bin Kaolin Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.

- (9) One (1) No. 2 Day Bin Alumina, equipped with a baghouse identified as No. 2 Day Bin Alumina Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
- (10) One (1) No. 3 Day Bin Sand, equipped with a baghouse identified as No. 3 Day Bin Sand Bin Venting Baghouse, constructed in 1988, capacity: 0.89 tons per hour.
- (b) One (1) Submerged Electric Furnace I (SEF I) Process consisting of:
 - (1) One (1) SEF I Mix Feed Bin, equipped with a baghouse identified as SEF I Mix Feed Bin Venting Baghouse, constructed in 1988, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Furnace, equipped with a baghouse identified as SEF I Furnace Hood Baghouse, constructed in 1986, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Collector, equipped with a baghouse identified as SEF I Collector Baghouse, constructed in 1991, capacity: 0.675 tons per hour.
 - (4) One (1) SEF I Bulk Bagger, equipped with a baghouse identified as SEF I Downline Baghouse, constructed in 1985, capacity: 0.675 tons per hour.
- (c) One (1) Submerged Electric Furnace II (SEF II) Process consisting of:
 - (1) One (1) SEF II Mix Feed Bin 1, equipped with a baghouse identified as SEF II Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (2) One (1) SEF II Mix Feed Bin 2, equipped with a baghouse identified as SEF II Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (3) One (1) SEF II Furnace, equipped with a baghouse identified as SEF II Furnace Hood Baghouse, constructed in 1988, capacity: 1.4 tons per hour.
 - (4) One (1) SEF II Packaging Equipment, equipped with a baghouse identified as SEF II Downline Baghouse, constructed between 1988 and 1990, capacity: 1.4 tons per hour.
 - (5) One (1) SEF II Cyclone, equipped with a baghouse identified as SEF II Cyclone Baghouse, constructed in 1996, capacity: 1.4 tons per hour.
 - (6) One (1) SEF II Collector, equipped with a baghouse identified as SEF II Collector Baghouse, constructed in 1996, capacity: 1.4 tons per hour.
- (d) One (1) Submerged Electric Furnace III (SEF III) Process consisting of:
 - (1) One (1) SEF III Mix Feed Bin 1, equipped with a baghouse identified as SEF III Mix Feed Bin 1 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Mix Feed Bin 2, equipped with a baghouse identified as SEF III Mix Feed Bin 2 Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.

- (3) One (1) SEF III Slag Reclaim Bin, equipped with a baghouse identified as SEF III Slag Reclaim Bin Venting Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (4) One (1) SEF III Furnace, equipped with a baghouse identified as SEF III Furnace Hood Baghouse, constructed in 1986, capacity: 1.4 tons per hour.
 - (5) One (1) SEF III Collector, equipped with a baghouse identified as SEF III Collector Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (6) One (1) SEF III Needler, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (7) One (1) SEF III Wet Slitter, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (8) One (1) SEF III Roll-up Machine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (9) One (1) SEF III Guillotine, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
 - (10) One (1) SEF III Attrition Mill, equipped with a baghouse identified as SEF III Downline Baghouse, constructed in 1985, capacity: 1.4 tons per hour.
- (e) One (1) Submerged Electric Furnace IV (SEF IV) Process consisting of:
- (1) One (1) SEF IV Mix Feed Bin 1, equipped with a baghouse identified as SEF IV Mix Feed Bin East Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (2) One (1) SEF IV Mix Feed Bin 2, equipped with a baghouse identified as SEF IV Mix Feed Bin West Bin Venting Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (3) One (1) SEF IV Furnace, equipped with a baghouse identified as SEF IV Furnace Hood Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (4) One (1) SEF IV Attrition Mill, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (5) One (1) SEF IV Cyclone & Bulk Bagger, equipped with a baghouse identified as SEF IV Downline Baghouse, constructed in 1997, capacity: 0.95 tons per hour.
 - (6) One (1) SEF IV HSA process, equipped with a baghouse identified as SEF IV HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
- (f) One (1) Vacuum Casting Process consisting of:
- (1) One (1) Vacuum Cast Mix Tank 1, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.
 - (2) One (1) Vacuum Cast Mix Tank 2, equipped with a baghouse identified as Vacuum Cast Mix Tanks Baghouse, constructed in 1982, capacity: 1 ton per hour.

- (3) One (1) Vacuum Cast Board Sander, equipped with a baghouse identified as Vacuum Cast Board Sander Baghouse, constructed in 1978, capacity: 1 ton per hour.
- (4) One (1) Vacuum Cast Board Saw System, equipped with a baghouse identified as Vacuum Cast Board Saw System Baghouse, constructed in 1996, capacity: 1 ton per hour.
- (g) One (1) Fabricated Products Area consisting of:
 - (1) One (1) Fabricated Products Area consisting of folding, banding, and module-making machines, equipped with a baghouse identified as Fabricated Products Area Equipment North Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (2) One (1) Fabricated Products Area consisting of a v-blender, ball mill, and high-temperature caulk fabrication, equipped with a baghouse identified as Fabricated Products Area Equipment West Baghouse, constructed in 1981, capacity: 2 tons per hour.
 - (3) One (1) Fabrication Area Vacuum System, equipped with a baghouse identified as Fabrication Area Vacuum System Baghouse, constructed in 1981, capacity: 1 ton per hour.
- (h) One (1) Warehouse Blow-off Booth with particulate emissions controlled by a Warehouse Blow-off Booth filter, constructed in 1981, capacity: 1 ton per hour.
- (i) One (1) ODB Bagger, equipped with a baghouse identified as ODB Baghouse, constructed in 1981, capacity: 0.25 tons per hour.
- (j) The following facilities at the Raw Material Handling System:
 - (1) One (1) Common Blender Transporter, constructed in 1990, equipped with a baghouse identified as Main Trans Vent Baghouse, capacity: 0.89 tons per hour.
 - (2) One (1) No. 4 Day Bin H.G. Alumina, constructed in 1990, equipped with a baghouse identified as No. 4 Day Bin H.G. Alumina Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (3) One (1) No. 5 Day Bin Zircon, constructed in 1990, equipped with a baghouse identified as No. 5 Day Bin Zircon Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (4) One (1) No. 6 Day Bin Test Material, constructed in 1990, equipped with a baghouse identified as No. 6 Day Bin Test Material Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (5) One (1) Bad Batch Bin, constructed in 1990, equipped with a baghouse identified as Bad Batch Bin Bin Venting Baghouse, capacity: 0.89 tons per hour.
 - (6) One (1) SEF I, SEF IV, Tilt Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF I, SEF IV, Blender Transporter Baghouse, capacity: 0.89 tons per hour.

- (7) One (1) SEF II, SEF III Blender Transporter, constructed in 1997, equipped with a baghouse identified as SEF II, SEF III Blender Transporter Baghouse, capacity: 0.89 tons per hour.
- (k) The following facilities at the Submerged Electric Furnace I (SEF I) Process:
 - (1) One (1) SEF I Conveyor System, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (2) One (1) SEF I Attrition Mill, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
 - (3) One (1) SEF I Picker, constructed in 1988, equipped with a baghouse identified as SEF I Downline Baghouse, capacity: 0.675 tons per hour.
- (l) The following facility at the Submerged Electric Furnace II (SEF II) Process:

One (1) SEF II Attrition Mill, constructed in 1997, equipped with a baghouse identified as SEF II Downline Baghouse, capacity: 1.4 tons per hour.
- (m) The following facilities at the Submerged Electric Furnace III (SEF III) Process:
 - (1) One (1) SEF III Conveyor System, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
 - (2) One (1) SEF III Bulk Bagger, constructed in 1985, equipped with a baghouse identified as SEF III Downline Baghouse, capacity: 1.4 tons per hour.
- (n) The following facilities at the Fabricated Products Area:
 - (1) One (1) Fabricated Products Area Band Saw System, constructed in 1981, equipped with a baghouse identified as Fabricated Products Area Band Saw System Baghouse, capacity: 1 ton per hour.
 - (2) One (1) Fabrication Area Blow-off booth, constructed in 1986, equipped with a filter identified as Fabrication area Blow-off Booth Filter, capacity: 1 ton per hour.

Emission Units and Pollution Control Equipment Removed From the Source

- (b) One (1) Tilt Furnace Process consisting of:
 - (1) One (1) Tilt Furnace Mix Feed Bin 1, equipped with a baghouse identified as Tilt Furnace Mix Feed Bins 1 & 2 Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
 - (2) One (1) Tilt Furnace Mix Feed Bin 2, equipped with a baghouse identified as Tilt Furnace Mix Feed Bins 1 & 2 Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
 - (3) One (1) Tilt Furnace Mix Feed Bin 3, equipped with a baghouse identified as Tilt Furnace Mix Feed Bin 3 Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
 - (4) One (1) Tilt Furnace, equipped with a baghouse identified as Tilt Fume Collector Baghouse, constructed in 1986, capacity: 0.925 tons per hour.

- (5) One (1) Tilt Furnace Cyclone, equipped with a baghouse identified as Tilt Furnace HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
 - (6) One (1) Tilt Furnace Bulk Bagger, equipped with a baghouse identified as Tilt Furnace HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
 - (7) One (1) Tilt Furnace Attrition Mill, equipped with a baghouse identified as Tilt Furnace HSA Baghouse, constructed in 1985, capacity: 0.925 tons per hour.
- (l) The following facility at the Tilt Furnace Process:

One (1) Tilt Furnace Conveyor, constructed in 1994, equipped with a baghouse identified as Tilt Furnace HSA Baghouse, capacity: 0.925 tons per hour.

Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:

One (1) Tilt Furnace Boiler, capacity: 7 million British thermal units per hour.[326 IAC 6.5]

Insignificant Activities

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1 (21).

Existing Approvals

Since the issuance of the Part 70 Operating Permit 141-7925-00029 on September 18, 2001, the source has constructed or has been operating under the following approval as well:

Administrative Amendment No. 141-19040-00029 issued on June 8, 2004.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in St. Joseph County

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including St. Joseph County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph counties as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

St. Joseph County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules is July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

St. Joseph County has been classified as attainment or unclassifiable in Indiana for the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions

This type of operation is in one of the twenty-eight (28) listed source categories, glass fiber processing plants, under 326 IAC 2-2. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	15593.23
PM ₁₀	15593.23
SO ₂	.96
VOC	.17
CO	3.75
NO _x	9.40

HAPs	tons/year
Total	<10/25

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

The Permittee has agreed that this source is a major source for Part 70 Permits 326 IAC 2-7 and Prevention of Significant Deterioration (PSD) 326 IAC 2-2.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM₁₀ is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

Actual Emissions

The following table shows the actual emissions reported from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	72
PM ₁₀	72
SO ₂	Not Reported
VOC	Not Reported
CO	Not Reported
NO _x	Not Reported
HAP (specify)	Not Reported

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential to Emit (tons/year)						HAP (single/combined)
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	
Baghouse Operations	189	189	--	--	--	--	--
Electric Furnaces	--	--	.94	--	1.17	6.33	<10/25
Total	189	189	0.94	--	1.17	6.33	<10/25
Minor Source Threshold for Part 70	—	100	100	100	100	100	10/25
Major PSD Threshold	100	100	100	100	100	100	NA

- (a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

Federal Rule Applicability

CAM:

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) have a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) are subject to an emission limitation or standard for that pollutant; and
 - (3) use a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

No emission units have the potential to emit before controls equal to or greater than the major source threshold. Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the existing units as part of this Part 70 permit renewal.

NSPS:

- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

- (1) This fiberglass insulation manufacturing source is not subject to the requirements of the New Source Performance Standard 40 CFR Part 60.290 Subpart CC because all furnaces are electric. Pursuant to 40 CFR 60.290(c), the subpart does not apply to all-electric melters.
- (2) This fiberglass insulation manufacturing source is not subject to the requirements of the New Source Performance Standard 40 CFR Part 60.600 Subpart HHH because this is not a solvent spun synthetic fiber process.
- (3) This fiberglass insulation manufacturing source is not subject to the requirements of the New Source Performance Standard 40 CFR Part 60.680 Subpart PPP because it does not have a rotary spun wool fiberglass insulation manufacturing line.
- (4) This fiberglass insulation manufacturing source is not subject to the requirements of the New Source Performance Standard 40 CFR Part 60.670 Subpart OOO because the sand and kaolin is not grinded and crushed. All grinding and crushing is done after processing in the melting furnaces.

NESHAP:

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)
At the time this source was constructed, the source was in a nonattainment area for PM. However, the PSD and Emission Offset threshold for this source, which is in one of the twenty-eight (28) listed source categories, is 100 tons per year. Pursuant to CP 141-2522-00029, issued on January 18, 1995, this source was limited to be a minor source under 326 IAC 2-3, Emission Offset. However, the limitations in the permit did not correctly represent the limited potential to emit of the source, and the limits did not ensure that the source was a minor source pursuant to 326 IAC 2-3, Emission Offset. This source was permitted as a major source in a minor modification to an existing minor source, which was permitted in 1996. This area of St. Joseph County has been re-designated as attainment for all criteria pollutants. This source is now a major source pursuant to 326 IAC 2-2, Prevention of Significant Deterioration (PSD). Because this source became major as a result of a minor modification to an existing major source, no PSD or Emission Offset review was required. The source will comply with the limitations applicable to each facility. These limitations are as follows:

- (a) Pursuant to CP 141-2522-00029, issued on January 18, 1995, the PM/PM₁₀ emissions from the baghouses listed below are limited to make the initial source a minor source pursuant to 326 IAC 2-3, Emission Offset, and to comply with 326 IAC 6.5-1-2:
 - (1) The limit for the Raw Material Storage and Handling Process: The No. 4 Sand Silo Baghouse, No. 3 Alumina Silo Baghouse, Raw Material Silo Baghouse, Kaolin Silo Baghouse, No. 5 Zircon Silo Baghouse, No. 6 H.G. Alumina Silo Baghouse, and the Alumina Transporter Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm, each; and the No. 2 Day Bin Alumina Bin Venting Baghouse and the No. 3 Day Bin Sand Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 900dscfm, each.
 - (2) The limit for the SEF I Furnace Process: SEF I Mix Feed Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.

- (3) The limit for the SEF II Furnace Process: SEF II Mix Feed Bin 1 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; and SEF II Mix Feed Bin 2 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.
 - (4) The limit for the Spun Furnace Process: SEF III Mix Feed Bin 1 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; SEF III Mix Feed Bin 2 Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm; and SEF III Downline Baghouse is 0.025gr/dscf with an input flow rate not to exceed 18,000dscfm.
 - (5) The limit for the Vacuum Casting Process: Vacuum Cast Board Sander Baghouse is 0.025gr/dscf with an input flow rate not to exceed 15,000dscfm; Vacuum Cast Board Saw System Baghouse is 0.025gr/dscf with an input flow rate not to exceed 18,000dscfm; and Vacuum Cast Mix Tanks 1 and 2 Baghouse is 0.025gr/dscf with an input flow rate not to exceed 7,500dscfm. In addition, each facility at the vacuum casting process shall be limited to 4,000 hours of operation per consecutive twelve (12) month period.
 - (6) The limit for the Fabricated Products Process: Fabricated Products Area Fabrication Equipment Baghouse 1 is 0.025gr/dscf with an input flow rate not to exceed 9,000dscfm; Fabricated Products Area Fabrication Equipment Baghouse 2 is 0.025gr/dscf with an input flow rate not to exceed 5,000dscfm; and Fabrication Area Vacuum System Baghouse is 0.025gr/dscf with an input flow rate not to exceed 1,000dscfm.
 - (7) The limit for the General Facilities: ODB Baghouse is 0.025gr/dscf with an input flow rate not to exceed 6,000dscfm.
 - (7) The limit for the No. 1 Day Bin Kaolin Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 900dscfm.
 - (9) The limit for the SEF III Slag Reclaim Bin Venting Baghouse is 0.025gr/dscf with an input flow rate not to exceed 500dscfm.
- (b) In order to show that the existing source was a minor source in 1995 pursuant to 326 IAC 2-3, Emission Offset, the following emission units are limited. The following limits will also ensure compliance with 326 IAC 6.5-1-2:
- (1) The limit for the SEF IV HSA Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 36,000dscfm;
 - (2) The limit for the SEF I Furnace Hood Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 15,000dscfm;
 - (3) The limit for the SEF I Collector Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 24,000dscfm;
 - (4) The limit for the SEF I Downline Baghouse is 0.0054gr/dscf with an input flow rate not to exceed 18,000dscfm;
 - (5) The limit for the SEF II Furnace Hood Baghouse is 0.00218gr/dscf with an input flow rate not to exceed 20,000dscfm;
 - (6) The limit for the SEF II Downline Baghouse is 0.00133gr/dscf with an input flow rate not to exceed 18,000dscfm;

- (7) The limit for the SEF II Cyclone Baghouse is 0.00111gr/dscf with an input flow rate not to exceed 30,000dscfm;
 - (8) The limit for the SEF III Furnace Hood Baghouse is 0.0025gr/dscf with an input flow rate not to exceed 20,000dscfm;
 - (9) The limit for the SEF III Collector Baghouse is 0.000626gr/dscf with an input flow rate not to exceed 39,000dscfm; and
 - (10) The limit for the Fabricated Products Area Band Saw System Baghouse is 0.025gr/dscf with an input flow rate not to exceed 2,500dscfm.
- (c) The facilities existing in 1995, but not permitted in CP 141-2522-00029, are required to comply with the following limitations:
- (1) The limit for the Common Blender Transporter is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (2) The limit for the No.4 Day Bin H.G. Alumina is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (3) The limit for the No.5 Day Bin Zircon is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (4) The limit for the No.6 Day Bin Test Material is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (5) The limit for the Bad Batch Bin is 0.025gr/dscf with an input flow rate of 500dscfm;
 - (6) The limit for the Fabrication Area Blow-off Booth is 0.025gr/dscf with an input flow rate of 3,000dscfm; and
 - (7) The limit for the Warehouse Blow-off Booth is 0.025gr/dscf with an input flow rate 3,000dscfm.
- (d) The facilities constructed during or after 1996 and not permitted in CP 141-2522-00029, are required to comply with the following limitations:
- (1) The limit for the SEF I, SEF IV Blender Transporter is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (2) The limit for the SEF II, SEF III Blender Transporter is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (3) The limit for the SEF II Collector is 0.030gr/dscf with an input flow rate of 40,000dscfm;
 - (4) The limit for the SEF IV Mix Feed Bin 1 is 0.030gr/dscf with an input flow rate of 500dscfm;
 - (5) The limit for the SEF IV Mix Feed Bin 2 is 0.030gr/dscf with an input flow rate of 500dscfm;

- (6) The limit for the SEF IV Furnace Hood Baghouse is 0.030gr/dscf with an input flow rate of 20,000dscfm; and
- (7) The limit for the SEF IV Attrition Mill, Cyclone and Bulk Bagger, all exhausting to the SEF IV Downline baghouse is 0.030gr/dscf with an input flow rate of 22,000dscfm.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted annually by July 1 beginning in 2004 and every year after. Therefore, the next emission statement for this source must be submitted by July 1, 2009. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 6.5 (Particulate Matter Limitations except Lake County)

Since the potential to emit PM from the entire source is greater than 100 tons per year and it's located in St. Joseph County, the requirements of 326 IAC 6.5-2 are applicable.

Pursuant to 326 IAC 6.5-2(a), each facility at this source shall not allow or permit discharge to the atmosphere of any gases which contain particulate matter in excess of 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot). According to the information submitted by the applicant, all facilities are able to comply with this rule. Compliance with the limitations listed under 326 IAC 2-2, above, will ensure compliance with this rule.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds

for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the Fabrication Area Blow-off Booth filter and Warehouse Blow-off Booth filter. To monitor the performance of the dry filters, weekly observations shall be made of the particulate from the blow-off booth stacks while the booths are in operation. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances - Failure to take response steps shall be considered a violation of this permit. Monthly inspections shall be performed of the particulate emissions from the stack and the presence of particulate on the rooftops and the nearby ground. The Response to Excursions or Exceedances for these units shall contain troubleshooting contingency and response steps for when a noticeable change in particulate emission or evidence of particulate emission is observed. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances - Failure to take response steps shall be considered a violation of this permit.
- (b) Visible emission notations of all stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Response to Excursions or Exceedances for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
- (c) The Permittee shall record the pressure drop across all baghouses used in conjunction with the high-heat insulating materials manufacturing source, at least once per day when the process exhausting to that baghouse is in operation when venting to the atmosphere. Unless operated under conditions for which the Response to Excursions or Exceedances specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 and 5.0 inches of water or a range established during the latest stack test. The Response to Excursions or Exceedances for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (d) In the event that bag failure has been observed:
 - (1) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Response to Excursions or Exceedances shall be initiated. For any failure with corresponding response steps and timetable not described in the Response to Excursions or

Exceedances, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses and filters for PM control must operate properly to ensure compliance with 326 IAC 6.5 (Particulate Matter Limitations except Lake County), 326 IAC 2-2 (PSD), and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 19, 2005.

Conclusion

The operation of this stationary high-heat insulating materials manufacturing source shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 141-22410-00029.

**Appendix A: Emission Calculations
Baghouse Operations**

**Company Name: Unifrax Corporation, New Carlisle Facility
Address City IN Zip: 54401 Smilax Road, New Carlisle, IN 46552-9751
Part 70: T 141-22410-00029
Reviewer: Michael S. Brooks
Date: August 18, 2008**

Unit ID	Control Name	Control Efficiency (%)	Grain Loading per Dry Standard Cubic foot of Outlet Air (grains/dscf)	Gas or Air Flow Rate (dscfm)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)	Raw Material Throughput (tons/hr)
No.4 Sand Silo	No.4 Sand Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.3 Alumina Silo	No.3 Alumina Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
Raw Material Silo	Raw Material Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
Kaolin Silo	Kaolin Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.5 Zircon Silo	No.5 Zircon Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.6 H.G. Alumina Silo	No.6 H.G. Alumina Silo Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
Alumina Transporter	Alumina Transporter Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.1 Day Bin Kaolin	No.1 Day Bin Kaolin Bin Venting Baghouse	99.0%	0.025	900.0	19.3	84.47	0.193	0.845	0.89
No.2 Day Bin Alumina	No.2 Day Bin Alumina Bin Venting Baghouse	99.0%	0.025	900.0	19.3	84.47	0.193	0.845	0.89
No.3 Day Bin Sand	No.3 Day Bin Sand Bin Venting Baghouse	99.0%	0.025	900.0	19.3	84.47	0.193	0.845	0.89
SEF I Mix Feed Bin	SEF I Mix Feed Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.68
SEF I Furnace	SEF I Furnace Hood Baghouse	99.0%	0.003	15000.0	32.1	140.79	0.321	1.41	0.68
SEF I Collector	SEF I Collector Baghouse	99.0%	0.003	24000.0	51.4	225.26	0.514	2.25	0.68

**Appendix A: Emission Calculations
Baghouse Operations**

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Reviewer: Michael S. Brooks
Date: August 18, 2008**

Unit ID	Control Name	Control Efficiency (%)	Grain Loading per Dry Standard Cubic foot of Outlet Air (grains/dscf)	Gas or Air Flow Rate (dscfm)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)	Raw Material Throughput (tons/hr)
SEF I Bulk Bagger, Conveyer System Attrition Mill, Picker	SEF I Downline Baghouse	99.0%	0.005	18000.0	83.3	364.92	0.833	3.65	0.68
SEF II Mix Feed Bin 1	SEF II Mix Feed Bin 1 Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	1.4
SEF II Mix Feed Bin 2	SEF II Mix Feed Bin 2 Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	1.4
SEF II Furnace	SEF II Furnace Hood Baghouse	99.0%	0.002	20000.0	37.4	163.69	0.374	1.64	1.4
SEF II Packaging Equipment and Attrition Mill	SEF II Downline Baghouse	99.0%	0.001	18000.0	20.5	89.88	0.205	0.899	1.4
SEF III Mix Feed Bin 1	SEF III Mix Feed Bin 1 Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	1.4
SEF III Mix Feed Bin 2	SEF III Mix Feed Bin 2 Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	1.4
SEF III Slag Reclaim Bin	SEF III Slag Reclaim Bin Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	1.4
SEF III Furnace	SEF III Furnace Hood Baghouse	99.0%	0.003	20000.0	42.9	187.71	0.429	1.88	1.4
SEF III Collector	SEF III Collector Baghouse	99.0%	0.001	39000.0	20.9	91.66	0.209	0.917	1.4
SEF III Needler, Wet Slitter, Roll-up Machine, Guillotine, 2.4 MMBtu/hr gas oven, Conveyer System, Attrition Mill, and Bulk Bagger	SEF III Downline Baghouse	99.0%	0.025	18000.0	385.7	1689.43	3.857	16.9	1.4
ODB Bagger and Opener	ODB Baghouse	99.0%	0.025	6000.0	128.6	563.14	1.286	5.63	0.25
Vacuum Cast Mix Tanks 1 and 2	Vacuum Cast Mix Tanks 1 and 2 Baghouse	99.0%	0.025	7500.0	160.7	703.93	1.607	7.04	1.00
Vacuum Cast Board Sander	Vacuum Cast Board Sander Baghouse	99.0%	0.025	15000.0	321.4	1407.86	3.214	14.1	1.00
Vacuum Cast Board Saw System	Vacuum Cast Board Saw System Baghouse	99.0%	0.025	18000.0	385.7	1689.43	3.857	16.9	1.00

**Appendix A: Emission Calculations
Baghouse Operations**

**Company Name: Unifrax Corporation, New Carlisle Facility
Address City IN Zip: 54401 Smilax Road, New Carlisle, IN 46552-9751
Part 70: T 141-22410-00029
Reviewer: Michael S. Brooks
Date: August 18, 2008**

Unit ID	Control Name	Control Efficiency (%)	Grain Loading per Dry Standard Cubic foot of Outlet Air (grains/dscf)	Gas or Air Flow Rate (dscfm)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)	Raw Material Throughput (tons/hr)
Fabricated Products Area consisting of folding, banding, module-making machines	Fabricated Products Area Fabrication Equipment North Baghouse	99.0%	0.025	9000.0	192.9	844.71	1.929	8.45	1.00
Fabricated Products Area consisting v-blender, ball-mill, high temp caulk fabrication machines	Fabricated Products Area Fabrication Equipment West Baghouse	99.0%	0.025	5000.0	107.1	469.29	1.071	4.69	1.00
Fabricated Products Area Bandsaw System	Fabricated Products Area Bandsaw System Baghouse	99.0%	0.025	2500.0	53.6	234.64	0.536	2.35	1.00
Fabrication Area Vacuum System	Fabrication Area Vacuum System Baghouse	99.0%	0.025	1000.0	21.4	93.86	0.214	0.939	1.00
SEF II Collector	SEF II Collector Baghouse	99.0%	0.005	40000.0	185.1	810.93	1.851	8.11	1.4
SEF IV Mix Feed Bin 1	SEF IV Mix Feed Bin East Bin Venting Baghouse	99.0%	0.020	500.0	8.6	37.54	0.086	0.375	0.95
SEF IV Mix Feed Bin 2	SEF IV Mix Feed Bin West Bin Venting Baghouse	99.0%	0.020	500.0	8.6	37.54	0.086	0.375	0.95
SEF IV Furnace	SEF IV Furnace Hood Baghouse	99.0%	0.020	20000.0	342.9	1501.71	3.429	15.0	0.95
SEF IV Attrition Mill, Cyclone and Bulk Bagger	SEF IV Downline Baghouse	99.0%	0.020	22000.0	377.1	1651.89	3.771	16.5	0.95
SEF IV HSA Process	SEF IV HSA Baghouse	99.0%	0.003	36000.0	77.1	337.89	0.771	3.38	0.93
Common Blender Transporter	Common Blender Transporter Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.4 Day Bin H.G. Alumina	No.4 Day Bin H.G. Alumina Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
No.5 Day Bin Zircon	No.5 Day Bin Zircon Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89

**Appendix A: Emission Calculations
Baghouse Operations**

**Company Name: Unifrax Corporation, New Carlisle Facility
Address City IN Zip: 54401 Smilax Road, New Carlisle, IN 46552-9751
Part 70: T 141-22410-00029
Reviewer: Michael S. Brooks
Date: August 18, 2008**

Unit ID	Control Name	Control Efficiency (%)	Grain Loading per Dry Standard Cubic foot of Outlet Air (grains/dscf)	Gas or Air Flow Rate (dscfm)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)	Raw Material Throughput (tons/hr)
No.6 Day Bin Test Material	No.6 Day Bin Test Material Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
Bad Batch Bin	Bad Batch Bin Bin Venting Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
SEF I, SEF IV Blender Transporter	SEFI, SEFIV Blender Transporter Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
SEF II, SEF III Blender Transporter	SEF II, SEF III Blender Transporter Baghouse	99.0%	0.025	500.0	10.7	46.93	0.107	0.469	0.89
Fabrication Area Blow-off Booth	Fabrication Area Blow-off Booth Filter	99.0%	0.025	3000.0	64.3	281.57	0.643	2.82	1.00
Warehouse Blow-off Booth	Warehouse Blow-off Booth Filter	99.0%	0.025	3000.0	64.3	281.57	0.643	2.82	1.00
Totals					3446	15093	34.5	151	

Methodology

Emission Rate in lbs/hr (after controls) = (grains/dscf) x (dscf/min) x (60 min/hr) x (lb/7000 grains)
 Emission Rate in lbs/hr (before controls) = Emission Rate (after controls) (lbs/hr) / (1-control efficiency)
 Emission Rate in tons/yr = (lbs/hr) x (8760 hr/yr) x (ton/2000 lb)

**Appendix A: Emission Calculations
Limited Baghouse Operations**

Company Name: Unifrax Corporation, New Carlisle Facility
 Address City IN Zip: 54401 Smitlax Road, New Carlisle, IN 46552-9751
 Part 70: T 141-22410-00029
 Reviewer: Michael S. Brooks
 Date: August 18, 2008

Unit ID	Control Name	Control Efficiency (%)	Limited Grain Loading per dry standard cubic foot of outlet air (grains/dscf)	Limited Gas or Air Flow Rate (dscfm)	Resulting Limited PM Emission Rate (lb/hr)	Resulting Limited PM Emission Rate (tons/yr)	Max. Raw Material Throughput (tons/yr)	Raw Material Throughput Limit * (tons/yr)	PM Emissions after All Limits (tons/yr)
No.4 Sand Silo	No.4 Sand Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.3 Alumina Silo	No.3 Alumina Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
Raw Material Silo	Raw Material Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
Kaolin Silo	Kaolin Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.5 Zircon Silo	No.5 Zircon Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.6 H.G. Alumina Silo	No.6 H.G. Alumina Silo Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
Alumina Transporter	Alumina Transporter Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.1 Day Bin Kaolin	No.1 Day Bin Kaolin Bin Venting Baghouse	99.0%	0.025	900.0	0.193	0.845	7796	n/a	0.845
No.2 Day Bin Alumina	No.2 Day Bin Alumina Bin Venting Baghouse	99.0%	0.025	900.0	0.193	0.845	7796	n/a	0.845
No.3 Day Bin Sand	No.3 Day Bin Sand Bin Venting Baghouse	99.0%	0.025	900.0	0.193	0.845	7796	n/a	0.845
SEF I Mix Feed Bin	SEF I Mix Feed Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	5957	n/a	0.469
SEF I Furnace	SEF I Furnace Hood Baghouse	99.0%	0.003	15000.0	0.321	1.41	5957	n/a	1.41
SEF I Collector	SEF I Collector Baghouse	99.0%	0.003	24000.0	0.514	2.25	5957	n/a	2.25
SEF I Bulk Bagger, Conveyor System Attrition Mill, Picker	SEF I Downline Baghouse	99.0%	0.005	18000.0	0.833	3.65	5957	n/a	3.65
SEF II Mix Feed Bin 1	SEF II Mix Feed Bin 1 Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	12264	n/a	0.469
SEF II Mix Feed Bin 2	SEF II Mix Feed Bin 2 Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	12264	n/a	0.469
SEF II Furnace	SEF II Furnace Hood Baghouse	99.0%	0.002	20000.0	0.374	1.64	12264	n/a	1.64
SEF II Packaging Equipment and Attrition Mill	SEF II Downline Baghouse	99.0%	0.001	18000.0	0.205	0.899	12264	n/a	0.899
SEF III Mix Feed Bin 1	SEF III Mix Feed Bin 1 Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	12264	n/a	0.469
SEF III Mix Feed Bin 2	SEF III Mix Feed Bin 2 Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	12264	n/a	0.469
SEF III Slag Reclaim Bin	SEF III Slag Reclaim Bin Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	12264	n/a	0.469
SEF III Furnace	SEF III Furnace Hood Baghouse	99.0%	0.003	20000.0	0.429	1.88	12264	n/a	1.88
SEF III Collector	SEF III Collector Baghouse	99.0%	0.001	39000.0	0.221	0.966	12264	n/a	0.966
SEF III Needler, Wet Slitter, Roll-up Machine, Guillotine, 2.4 MMBtu/hr gas oven, Conveyor System, Attrition Mill, and Bulk Bagger	SEF III Downline Baghouse	99.0%	0.025	18000.0	3.857	16.9	12264	n/a	16.9
ODB Bagger and Opener	ODB Baghouse	99.0%	0.025	6000.0	1.286	5.63	2190	n/a	5.63
Vacuum Cast Mix Tanks 1 and 2	Vacuum Cast Mix Tanks 1 and 2 Baghouse	99.0%	0.025	7500.0	1.607	7.04	8760	4000	3.21

**Appendix A: Emission Calculations
Limited Baghouse Operations**

**Company Name: Unifrax Corporation, New Carlisle Facility
Address City IN Zip: 54401 Smilax Road, New Carlisle, IN 46552-9751
Part 70: T 141-22410-00029
Reviewer: Michael S. Brooks
Date: August 18, 2008**

Unit ID	Control Name	Control Efficiency (%)	Limited Grain Loading per dry standard cubic foot of outlet air (grains/dscf)	Limited Gas or Air Flow Rate (dscfm)	Resulting Limited PM Emission Rate (lb/hr)	Resulting Limited PM Emission Rate (tons/yr)	Max. Raw Material Throughput (tons/yr)	Raw Material Throughput Limit * (tons/yr)	PM Emissions after All Limits (tons/yr)
Vacuum Cast Board Sander	Vacuum Cast Board Sander Baghouse	99.0%	0.025	15000.0	3.214	14.1	8760	4000	6.43
Vacuum Cast Board Saw System	Vacuum Cast Board Saw System Baghouse	99.0%	0.025	18000.0	3.857	16.9	8760	4000	7.71
Fabricated Products Area consisting of folding, banding, module-making machines	Fabricated Products Area Fabrication Equipment North	99.0%	0.025	9000.0	1.929	8.45	8760	n/a	8.45
Fabricated Products Area consisting of v-blender, ball-mill, high temp caulk fabrication machines	Fabricated Products Area Fabrication Equipment West	99.0%	0.025	5000.0	1.071	4.69	8760	n/a	4.69
Fabricated Products Area Bandsaw System	Fabricated Products Area Bandsaw System Baghouse	99.0%	0.025	2500.0	0.536	2.35	8760	n/a	2.35
Fabrication Area Vacuum System	Fabrication Area Vacuum System Baghouse	99.0%	0.025	1000.0	0.214	0.939	8760	n/a	0.939
Totals for those permitted in 1995					22.4	98			77.6
Common Blender Transporter	Main Trans Vent Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.4 Day Bin H.G. Alumina	No.4 Day Bin H.G. Alumina Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.5 Day Bin Zircon	No.5 Day Bin Zircon Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
No.6 Day Bin Test Material	No.6 Day Bin Test Material Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
Bad Batch Bin	Bad Batch Bin Bin Venting Baghouse	99.0%	0.025	500.0	0.107	0.469	7796	n/a	0.469
Fabrication Area Blow-off Booth	Fabrication Area Blow-off Booth Filter	99.0%	0.025	3000.0	0.643	2.82	8760	n/a	2.82
Warehouse Blow-off Booth	Warehouse Blow-off Booth Filter	99.0%	0.025	3000.0	0.643	2.82	8760	n/a	2.82
Totals for facilities that were CWOP/OWOP in 1995, but not permitted in 1995					1.82	7.98			7.98
SEF II Collector	SEF II Collector Baghouse	99.0%	0.030	40000.0	10.286	45.05	12264	n/a	45.1
SEF IV Mix Feed Bin 1	SEF IV Mix Feed Bin 1 Bin Venting Baghouse	99.0%	0.030	500.0	0.129	0.563	8322	n/a	0.563
SEF IV Mix Feed Bin 2	SEF IV Mix Feed Bin 2 Bin Venting Baghouse	99.0%	0.030	500.0	0.129	0.563	8322	n/a	0.563
SEF IV Furnace	SEF IV Furnace Hood Baghouse	99.0%	0.030	20000.0	5.143	22.5	8322	n/a	22.5
SEF IV Attrition Mill, Cyclone and Bulk Bagger	SEF IV Downline Baghouse	99.0%	0.030	22000.0	5.657	24.8	8322	n/a	24.8
SEF IV HAS Process	SEF IV HAS Baghouse	99.0%	0.003	36000.0	0.926	4.1	8322	n/a	4.1
SEF I, SEF IV Blender Transporter	SEFI, SEFIV Blender Transporter Vent Baghouse	99.0%	0.030	500.0	0.129	0.563	7796	n/a	0.563
SEF II, SEF III Blender Transporter	SEF II, SEF III Blender Transporter Baghouse	99.0%	0.030	500.0	0.129	0.563	7796	n/a	0.563
Totals for facilities permitted in 1996 and/or constructed in 1997					22.52571429	98.7			98.7
Totals					46.8	205			184

Methodology

* Instead of throughput limits, there are limits on the hours of operation at some facilities. This limit in conjunction with the grain loading and flow rate limits ensures that the source does not exceed the limited potential to emit.

Resulting Limited Emission Rate in lbs/hr = (grains/dscf) x (dscf/min) x (60 min/hr) x (lb/7000 grains)

Resulting Limited Emission Rate in tons/yr = (lbs/hr) x (8760 hr/yr) x (ton/2000 lb)

PM Emissions after all limits (tons/yr) = Resulting Limited Emission Rate (tons/yr) x Raw Material Throughput Limit/ Max. Raw Material Throughput

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Part 70: T 141-22410-00029
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Throughput

0.675 ton/hr

Process	Pollutant	Emission Factor	Potential to Emit	
			(lb/ton)	(lb/hr)
SEF I				
	SOx	0.04	0.027	0.118
	NOx	0.27	0.182	0.798
	CO	0.05	0.034	0.148
	Flourides	0.002	0.001	0.006

Throughput

1.4 ton/hr

Process	Pollutant	Emission Factor	Potential to Emit	
			(lb/ton)	(lb/hr)
SEF II				
	SOx	0.04	0.056	0.245
	NOx	0.27	0.378	1.66
	CO	0.05	0.070	0.307
	Flourides	0.002	0.003	0.012

Throughput

1.4 ton/hr

Process	Pollutant	Emission Factor	Potential to Emit	
			(lb/ton)	(lb/hr)
SEF III				
	SOx	0.04	0.056	0.245
	NOx	0.27	0.378	1.66
	CO	0.05	0.070	0.307
	Flourides	0.002	0.003	0.012

Throughput

0.95 ton/hr

Process	Pollutant	Emission Factor	Potential to Emit	
			(lb/ton)	(lb/hr)
SEF IV				
	SOx	0.04	0.038	0.166
	NOx	0.27	0.257	1.12
	CO	0.05	0.048	0.208
	Flourides	0.002	0.002	0.008

Totals	Pollutant		Potential to Emit	
			(lb/hr)	(ton/yr)
	SOx		0.177	0.775
	NOx		1.19	5.23
	CO		0.221	0.97
	Flourides		0.009	0.039

Methodology

Emission factors are from AP-42 Ch 11.13, tables 11.13-4 and 11.13-6.

Potential to emit (lb/hr) = throughput (ton/hr) x emission factor (lb/ton)

Potential to emit (ton/yr) = throughput (ton/hr) x emission factor (lb/ton) x 8760 hr/yr / 2000 lb/ton